

REMARKS

Reconsideration of this application is respectfully requested. Claims 14, 15 and 16 have been amended for typographical errors. Claims 1, 11 and 39 have been amended to clarify that a pattern engine is used to recognize patterns in an unmodified broadcast data stream; a repository storing attributes concerning interactive TV triggers to be inserted into the broadcast data stream is accessed and a determination made as to whether a pattern recognized by the pattern engine is to be associated with a one of the interactive TV triggers; and, if so, then prior to broadcasting, automatically inserting an interactive TV trigger determined to be associated with a recognized pattern into the broadcast data stream. Support for these amendments is found in the specification as originally filed, for example at paragraphs 24 and 39-40, hence, no new matter is added by these amendments. Claims 7, 9, 12, 17, 19, and 21-38 have been cancelled without prejudice and solely to reduce the number of issues presented for review. New claims 41 and 42 recite subject matter formerly found in claims 21 and 30, hence, no new matter is introduced by the addition of these claims.

The present claims are patentable over Kikinis, because Kikinis does not describe recognizing one or more patterns in an unmodified broadcast data stream and, prior to broadcasting, automatically inserting interactive triggers based on this recognition in the manners presently claimed.

Kikinis (U.S. Patent 5,929,849) discusses providing TV viewers with a link to supplementary information pertaining to displayed images received at a set-top box. This is accomplished by inserting, on a frame-by-frame basis a URL link within each frame (or in locations between frames) and associating the link with a position of an element within the subject frame. Kikinis, col. 10, ll. 6-11. For live broadcasts, determining the position within the frame at which to associate the URL link requires specially equipped imaging apparatus or the labeling of individuals. Kikinis, col. 11, ll. 1-7, and 19-27. Kikinis is actually silent when it comes to describing how the elements within the various frames that are to be associated with URL links are actually identified.

In contrast, the present claims recite use of a pattern engine to recognize patterns in an unmodified broadcast data stream. Further, the claims recite consulting a repository storing attributes concerning interactive TV triggers to be inserted into the broadcast data stream is accessed and determining whether a pattern recognized by the pattern engine is to be associated with a one of the interactive TV triggers. Such features are simply not discussed by Kikinis at all. Accordingly, the present claims are patentable over this reference.

The present claims are patentable over Kikinis in view of Portuesi, because neither reference describes recognizing one or more patterns in an unmodified broadcast data stream and prior to broadcasting, automatically inserting interactive triggers based on this recognition, as presently claimed.

Portuesi (U.S. Patent 5,774,666) describes a system and method for displaying an active uniform network resource locator (URL) embedded in a time-based medium. Upon activation of this locator by a user the referenced resource is retrieved and displayed. Portuesi Abstract. However, Portuesi does not teach or suggest use of a pattern engine to recognize patterns in an unmodified broadcast data stream, and consulting a repository storing attributes concerning interactive TV triggers to be inserted into the broadcast data stream is accessed to determine whether a pattern recognized by the pattern engine is to be associated with a one of the interactive TV triggers, as presently claimed.

Instead, in the system described by Portuesi, URLs are embedded in a time-based medium (such as a movie) by explicitly defining in a special URL track when the URLs should appear and where they should be placed on display. This requires explicitly associating the URLs with audio, image and other elements of a time-based medium using the temporal relationship between the various tracks.¹ Portuesi col. 4, l. 49 – col. 5, l. 12; and col. 5, ll. 20-27 and 40-45.

Thus, in the system described by Portuesi, there is no recognition of patterns in an unmodified broadcast data stream and based on such recognition, automatic insertion of

¹ Tables 1-8 (cols. 7-8) in Portuesi further illustrate the explicit definition of, placement and timing of the URL appearance. For enabling a hotspot, shape boundaries (e.g., 2D coordinates) will have to be explicitly defined. Portuesi col. 8, Table 5. Similarly, durations, frame motion association, etc., also have to be explicitly defined. Portuesi col. 7-8, Table 2, 8.

interactive TV triggers, as required by the present claims. Consequently, adding the teachings of Portuesi to those of Kikinis fail to yield the present invention.

For all of the foregoing reasons, the claims are patentable over the references cited in the Office Action. If there are any additional fees due in connection with this communication, please charge our deposit account no. 19-3140.

Respectfully submitted,

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